



Effectiveness Imitation, Creation, and Origination Focus Learning by Using Encore to Improve Musicality and Creativity of Nasheed

Kun Setyaning Astuti

Dr., Universitas Negeri Yogyakarta, Indonesia, kun_setyaningastuti@uny.ac.id

Darmiyati Zuchdi

Universitas Negeri Yogyakarta, Indonesia, darmiyatizuchdi@gmail.com

Suminto A. Sayuti

Universitas Negeri Yogyakarta, Indonesia, suminto_sayuti@uny.ac.id

Panca Putri Rusdewanti

Universitas Negeri Yogyakarta, Indonesia, panca_putri@uny.ac.id

Triyono Bramantyo

Institut Seni Indonesia, Indonesia, t_bramantyo@hotmail.com

An effective learning process must be organized in a focus. Focus is the focal point of competency targets. The study examines the effect of Imitation, Creation, and Origination as a focus learning by using Encore software to musicality and creativity of Nasheed groups, which currently spreads all over Indonesia. It is important to know about the effect because popularity of Nasheed groups has not been matched by the quality of playing music adequately. By providing Encore software, it is expected that Nasheed groups could satisfy their fans. This research is an experiment research with Pre-test -Post-test Control Group randomized design. The factorial design is applied 4 x 3 factorial design. Three kinds of treatments were given to the experiment Nasheed groups. Imitation treatment was provided for beginner, creation treatment for semi-professional, and originality treatment for professional Nasheed group. Control group was given conventional learning. The sampling technique employed stratified random sampling with 26 groups which involved 262 munsyid (Nasheed player) which were divided into 131 experimental and 131 control groups. The effect of Encore software was analysed through MANCOVA analysis. The result of the research shows that the use of Encore technology could improve musicality and creativity for Nasheed group. This is indicated by the Pillai's trace value of 0.004 at 0.05% significance. However, based on multivariate analysis, the learning focus did not significantly affect creativity.

Keywords: Nasheed group, encore music software, learning focus, imitation, origination

Citation: Astuti, K. S., Zuchdi, D., Sayuti, S. A., Rusdewanti, P. P., & Bramantyo, T. (2022). Effectiveness imitation, creation, and origination focus learning by using encore to improve musicality and creativity of Nasheed. *International Journal of Instruction*, 15(2), 751-774. <https://doi.org/10.29333/iji.2022.15241a>

INTRODUCTION

At the beginning of the 21st century, a music genre called *Nasheed* was developed in various countries. Barendregt (2011) stated that from 2000 to 2005, *Nasheed*, a genre of Islamic popular music, occupied a prominent position in the music and recording industries of Muslims in Southeast Asia, especially in Indonesia and Malaysia. *Nasheed* also grew in the Netherlands, among circles of Muslim immigrants (Astuti, et al., 2020). Even one of the famous Lebanese singers in the world, Maher Zein, is originally from Sweden. Meanwhile, in America there is also a *Nasheed* group that is highly idolized by the younger generation of Muslims, including fans from Indonesia called “Debu”.

In Indonesia, this era is witnessing the emergence of *Nasheed* “Boom”. This was marked by the advents of hundreds of *Nasheed* musical groups spread all over the nation. Mulyani (2003) states that by 2003 *Nasheed* had entered campus and off-campus environments both in big cities and remote areas. Pasrizal, Mutasar, Khaira, and Shabri (2020) stated that currently, *Nasheed* is also one of the activities used in schools to increase the religious values of students through music. Meanwhile, Ajmain, Safar, Mohamed, and Huda, (2020) stated that in Malaysia, *Nasheed* is one of the ways of teaching and facilitating the learning process.

In Indonesian society, currently *Nasheed* is also increasingly being popular. Ulfa (2018) stated that international *Nasheed* groups such as Raihanm Brothers, Hijazz, Rabbani, and Saujana affected the emergence of *Nasheed* groups in Indonesia such as Snada, Justice Voice, The Fikr, and Edcoustic. Furthermore, Sujatmiko & El Ishaq (Rokhani, 2019) stated that the existence of religious music further competed with popular songs because some Indonesian bands such as Ungu Band also released religious songs.

Meanwhile, in the previous decade, Islamic music adopted a conventional style, in which percussion instruments such as tambourines were the main instruments. At present *Nasheed* appears in a modern fashion. The phenomenon is not only mushroomed in Indonesia, but also in different parts of the world, including UK as Gwilliam (2009) stated that DJ Mumin, a Muslim musician, brought Islam to the forefront of the musical stage. Mecca 2 Medina is another rap group at the head of this movement.

Morris (2016) categorizes Muslim musicians into one of two cultural streams: ‘Islamic music’ and ‘Islamically-conscious music’. Indonesian *Nasheed* at present tend to perform ‘Islamically-conscious music’ which is marked by a desire to universalize the values and Islam beliefs to take a Muslim world view and produce music that will resonate with both Muslims and non-Muslims.

The existence of *Nasheed* which is more universal needs to be maintained and developed to bring benefit to all people in the world. A piece of music will last a long time if it has a good quality.

The quality of *Nasheed* groups can be seen in the production of *Nasheed* songs they produce, either their own songs or other groups’ songs that they composed. In terms of music, the beauty of the *Nasheed* songs lies in the musicality and creativity of the group. Group musicality is the group’s ability to master musical harmonization rules, while group creativity refers to the ability of *Nasheed* groups in creating new patterns both in

terms of arrangements and song creations. Thus, the quality depends on the musical ability. However, based on data, the musicality and creativity of *Nasheed* in Indonesia are generally still low.

Kompas (Astuti, 2009) stated that the skills of some *Nasheed* singers at the Indonesian *Nasheed* Festival still need a lot of practices in vocals and performances before appearing for public on a national scale. Many of these singers still sing with the wrong pitch. Astuti (2009) found that based on data on the musicality of *Nasheed* players at the *Nasheed* festival of the Special Region of Yogyakarta, it was obtained that the average musicality of the participants was 6.96 (from a maximum score of 20). If *Nasheed* groups do not immediately improve their quality, *Nasheed* "booming" in society will not last long.

Wang (2016) states that introduction of MIDI computer technology and multimedia system in teaching is required to balance the theory and practice of teaching harmony, hearing student image and visual image effectively. The general mainly US Passport Designs has developed "Encore" notation software (vision 4.2.1)

The software allows the composers to write and listen to their compositions. It is also equipped with harmonization and chord progression, so for beginners or novices in music term from Miletto, Pimenta, Bouchet, Sansonnet, and Keller (2011) can automatically arrange the harmonization just by writing the melody. Furthermore, (Wang, 2016) said that Encore has a very intuitive score display function and teacher can teach in harmony with the actual sound spectrum of cases in the classroom teaching harmony synchronized show in front of students, and can be quickly re-representation

Therefore, lack of mastery in the harmony can be overcome by utilizing the software. The quality of *Nasheed* song composition, arrangement, and musical performance technique can be improved by utilizing the software.

Nasheed who grows and develops in Indonesia has very diverse musical abilities. There are *Nasheed* groups that are formed professionally, judging by the ability of players who have high musical abilities and are commercial. However, there are also many amateur(beginner) *Nasheed* groups formed by young people who are still in the process of learning to play music, for example, those formed by schools and the community. In its development, many amateur *Nasheed* groups have continued to increase and become semi-professional groups.

Jailani (2014) explains the meaning of professional is a job or livelihood. In the field of art, a professional is defined as a paid player, on the other hand, amateur players mean players who are not paid because they are still in the process of achieving their abilities. Meanwhile, in terms of psychomotor abilities, Simpsons (Kun Setyaning Astuti et al., 2020) states that there were eight levels of psychomotor levels, namely perception, set, imitation, guided response, mechanism, complex overt response, adaptation and originality.

The definition of professional in terms of the opinion of Jailani and Simpsons is quite correlated. The higher a skill or an ability level is achieved, the more deserving it is to be rewarded.

The *Nasheed* groups that develop in Indonesia have various abilities according to the level as stated by Jailani and Simpson. There are *Nasheed* groups that are still in the learning process that do not have to be rewarded when they perform, but there are also professional *Nasheed* groups who deserve to be rewarded, and there are *Nasheed* groups that are between the two which the author calls semi-professional. When viewed from the level of Simpson's psychomotor ability, in general, amateur *Nasheed* groups are at the imitation level. Meanwhile, for the semi-professional level, it is at the level, guide response, and mechanism. Meanwhile, the professional *Nasheed* group has reached a complex overt response, adaptation level and originality.

Authentic learning outcomes are learning outcomes that are long-lasting, useful, meaningful, and students do use them in life, one of which can be achieved if the learning process is carried out with a precise and clear focus (Mursell, 2007). In performing *Nasheed*, the new group sang songs belonging to other well-known *Nasheed* groups, semi-professional group, there are times when they have started to compose their own songs and perform the song, while for groups that are already professional, they bring their own songs that characterize their identity or originality. So the focus of learning in *Nasheed* can be divided into three types, namely first, the learning process that focuses on imitation, the second focuses on creation, and the third focuses on originality.

Nasheed in general is a musical presentation in the form of an ensemble, which is a musical performed by two or more people together. (Kun Setyaning Astuti, 2003) suggests that the presentation of musical ensembles is influenced by two factors, namely musical ability and creativity.

Hatch and Gardner (1993) says that in general human beings are equipped with nine types of intelligence, one of which is musical intelligence, which is defined as tone sensitivity or an ability to distinguish pitch (high and low notes) and sing the tone correctly.

Pherson (1997), through the Intra Personal Catalysis scheme, reveals that some people are gifted and talented in music. Gift is a term used to describe someone with a natural ability or potential that is above average while talent is used to describe someone who can demonstrate exceptional skills as a result of systematic training in a specific field. Furthermore, Gagne (as cited in Pherson, 1997) argues that talent can be found in a number of fields. In the field of music, talent implies a set of skills that includes all definitions of talent, such as a child who can play a concerto, or a singer with a broad vocal range. Thus, talent is a special skill that can some develop through learning from their environments such as from parents, teachers and peers, all of which are also influential for the development of the individual's personalities and motivations.

Thus, the learning given to the *Nasheed* must be able to provide an environment and training that can improve the musicality of the *Nasheed*. Because musical ability is an important factor to produce quality music presentations. In addition, the appearance of *Nasheed* is also influenced by the creativity of the *Nasheed* group in presenting *Nasheed* songs. Gibson, Folley, and Park (2009) said that creativity focused on the importance of divergent thinking. Furthermore, according to Guilford, it is divergent thinking that

provides the foundation for creative production because it requires ideational searching without directional boundaries, and is determined by fluency, flexibility, and originality. Meanwhile Treffinger (Supratman, Zubaidah, Corebima, & Ibrohim, 2021) adding that creative thinking include fluency, flexibility, originality, elaboration, and metaphorical thinking.

In Nasheed, divergent thinking and creativity refers to the ability of Nasheed groups in creating new patterns both in terms of arranger and song creation. Nasheed groups are required to be able to arrange and make music that is different and has originality, and when performing the arrangement or song creation, it requires elaboration between teams and doing metaphorical thinking to produce quality works.

Thus, the aim of this research is to determine the effectiveness of the focus of imitation learning, creation and origination using encore music software on the musicality and creativity of the *Nasheed* group. The study aims to answer two main research questions: how effective is learning focusing on imitation, creation, and originality by using encore in improving 1) the musicality and 2) creativity of *Nasheed*?

Review Of Literature

Definition of Nasheed

The word *Nasheed* comes from “nasyd”, which, according to Al-Farabi (Poetra, 2004), means “hymn”, and according to ancient Greek people, it is a song of praise. However, later the function of the *Nasheed* is developed to accompany a variety of events, such as harvests and wars. Arabic people during Al-Farabi’s era perceived the *Nasheed* as verses to sing and it was not restricted to the songs of praise to God. According to Munawwir (Mulyani, 2003), the word *Nasheed* means a song. The *Nasheed* is an ensemble of vocals, generally a cappella, consisting of four to eight *Nasheed* singers (hereafter ‘*munsyid*’) in one group.

***Nasheed* Group Categories from the Professionalism Aspect**

Gaser and Schlaug (as cited in Gibson et al., 2009) mention the term music player in two categories, namely professional musicians (for example pianists) and amateur music players. In his research, it was found that musician status was correlated positively with the volumes of the left precentral gyrus, left Heschl’s gyrus, and right superior parietal cortex. Furthermore, Gibson et al. (2009) explained that it seems that music training may increase grey matter volumes in both hemispheres and there is some evidence to suggest that the connectivity of the two hemispheres may also be altered in musicians.

Meanwhile, Lehmann, Sloboda, and Woody (2007) classify musicians' skill levels into four, namely elite music experts, music experts, music novices (amateur/learners at varying levels), and average population without formal music training. The following is an image of the pyramid of musical skill levels proposed by Lehmann et al. (2007).

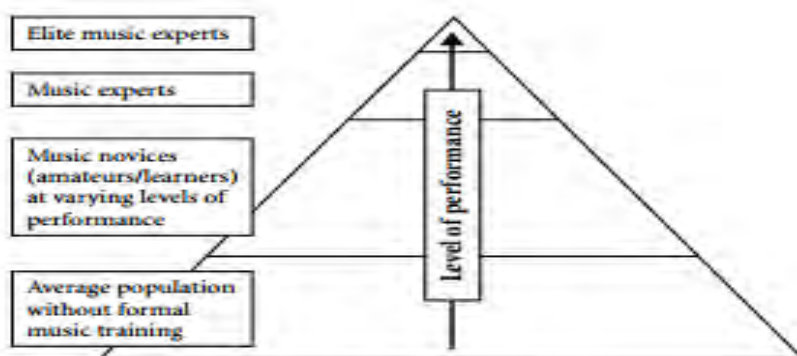


Figure 1

Pyramid model of distribution of musical skills in society

Fewer individuals attain higher levels of music performance. Individual's differences within levels are considerable. (2007, p.16)

A Nasheed group is a group that has been able to present music in a performance, if it is associated with the classification, it can be at the second to fourth level, namely the amateur level, music expert, and elite music expert.

Based on observations of Nasheed groups in Indonesia (Kun Setyaning Astuti, 2009) revealed that broadly there are three groups of Nasheed groups. The first group is a Nasheed group that has not mastered the basic concepts of music well because they are still in the stage of learning to master the concept of music.

The characteristics are that the number of songs mastered is still relatively small, the homogeneity of the sound has not been formed, each member has not found his right position in the Nasheed group, and the frequency of performances is relatively small with the range of the staging area still being local. These groups do not yet have their own album so they still sing Nasheed songs from other Nasheed groups in their performances. Their abilities are generally at the level of achieving simple harmonization mastery. Because they don't really understand the concept of harmonization, they often sing with voices that are still fake, especially players who act as accompanists or who act as backing vocals, because they don't understand chord progressions well. This Nasheed group also has not been able to arrange songs properly so that the melody, harmony, and rhythm have not been fully integrated.

The second group is a Nasheed group which is a level higher than the first group. In general, they are able to compose songs and have their own album, even though they are still indie labels or the Nasheed group has been formed for more than three years. Semi-professional Nasheed members have been able to adjust to the team well so that each player can complement each other by adjusting the timbre of the voice so as to form good sound homogeneity. This group of Nasheed groups generally have a wider range of staging areas with a greater frequency of performances and generally have better musicality. They already understand the concept of harmonization with vocal techniques

and music playing techniques well, so they are able to sing with good pitch control as well. But in general, they have not been able to master the stage professionally, and creativity in arranging songs is still simple.

The third group Nasheed group is a Nasheed group that already has an album and is produced by a record company, either a major label or a semi-major label. The Nasheed group in this third group is generally able to display the distinctive timbre of music. The range of the staging area is wider than the Nasheed group in the previous group, namely outside the province and even outside Java if the group is domiciled on the island of Java. This group Nasheed group is able to perform songs very well, without false tones, with a very harmonious mix of tones and creatively displayed according to their identity character or in other words presented in an original way. This third group of Nasheed groups is generally supported by *munsyids* (Nasheed player) who have good musicality. This is very reasonable because in general the Nasheed group is more than four years old or they consist of *munsyids* who have been practicing Nasheed for a long time and formed a new Nasheed group so that they are more experienced than the Nasheed group compared to the first and second groups. The Nasheed players of this group are generally very good at chord progressions and they can actualize it spontaneously, so they can focus on mastering the stage.

Based on Gaser and Schlaug's opinion which distinguishes the level of musician ability at the amateur and professional levels, then based on Lehmann's opinion about the level of musician expertise, and Astuti's findings, based on professionalism the author classifies the Nasheed group into 3 categories, namely beginner (amateur), semi-professional, and professional. A beginner Nasheed group generally has not mastered basic musical concepts well because its members are still in the process of learning to master musical concepts.

A semi-professional *Nasheed* group is a bit better than beginner *Nasheed* group. In general, semi-professional *Nasheed* groups have been able to create their own songs and recorded their own albums in spite of the indie label or such groups which have been established for more than three years. Members of a semi-professional *Nasheed* group have been able to adapt themselves to the group well, so that each member can complete one another with timbre adaptation to establish good voice homogeneity. Such groups generally have wider performance area coverage with a higher performance frequency.

A professional *Nasheed* group is one that has recorded albums and the albums are produced by a recording company with a major label or a semi-major label. Such a group is generally capable of performing music uniquely. A professional *Nasheed* group's performance area coverage is wider than that of a semi-professional *Nasheed* group, namely areas outside the province.

Phases of *Nasheed* Psychomotoric Ability

In 1964-1967 Simpson (1971) develop of psychomotor aspects suitable for industrial education, agriculture, home economics, business education, music, art, and physical education. The level is perception, set, imitation, guide response, mechanism, complex response, adaptation, and originality.

Astuti et al. (2020) state that perception is an essential first step in performing a motor act. Set is a preparation adjustment or readiness for a particular kind of action or experience. A guided response is the overt behavioural act of an individual under the guidance of the instructor. The mechanism for the subject level learning response has become habitual. The complex overt response is the ability of the subject to perform motor actions that are considered complex because of the movement of the pattern required.

In his further development, Simpson adds two aspects, namely adaptation and origination. Thomas and Thomas (1974) explains that adaptation is altering motor activities to meet demands in a problematic situation. Meanwhile, origination is creating new motor acts or ways of manipulating materials out of skills, abilities, and understanding developed in the psychomotor area.

Astuti (2009) identified the beginner *Nasheed* group's capability based lies in the imitation, guided response, and mechanism levels. The semi-professional *Nasheed* group's musicality is in the complex response level, while the professional group has accomplished high adaptation and originality levels.

Based on Psychomotoric simpson's levels, the ability of *Nasheed* members can also be described that through the ability to use five senses. The ability of *munsyid* includes the ability to distinguish between false and non-false tones, proper tone harmonization, mayor and minor chords. Set is the ability to show a particular position in singing or playing music. The set ability includes showing the correct position of breathing in singing. Imitation is the ability to simulate an exemplary technique. A *Nasheed* player or *munsyid* who imitates and sings a song played by a teacher or another singer works in an imitation stage. Guided response is the ability to mimic a variety of techniques with teacher or instructor guidance. The guided response stage is demonstrated by the *munsyid* who combines singing techniques with articulation, intonation, and breath correctly with the guidance of teachers or instructors. Likewise, the *Nasheed* group tries to sing along with the voice sharing and adjusts the tones of other singers while maintaining the homogeneity of the group's voice with the teacher instruction. Mechanism is the ability to combine various singing techniques either individually or collectively without the other guidance. A *Nasheed* group sings its own arrangement or creates its own song level mechanism. It is similar to the case with the *Nasheed* groups who composed their own songs but they are still not very good. Complex response is the stage where various advanced techniques have been achieved. Adaptation is the complex ability to respond to the demands. For example, a *Nasheed* group is able to sing songs with any other genres, such as pops. A *Nasheed* group can sing to suit the audience's expectation, whether they are older generation, young adult or kids. A professional *Nasheed* group is able to master a variety of singing techniques, play music with great skill, and develop new patterns that characterize its identity. When associated with the level of professionalism of *Nasheed* groups, beginner *Nasheed* ability generally limited to mimicking *Nasheed* songs with inadequate techniques. In a group of professional *Nasheed* in general musical ability they have been good and able to integrate various techniques with advanced. But in general, they do not have a clear

identity. They are still in the process of shaping the right character. The professional *Nasheed* group is a very advanced group so that it can adapt to various characters of the audience, and they already have a very strong and original character that became the hallmark of *Nasheed* group. Improvisation is one of the abilities. It is appropriate with Azzara (1999) states that if good musicianship and aural skills are the goal of all music programs-instrumental, choral, and general the improvisation can play immensely important role in achieving these goals.

***Nasheed* Group Musicality and Creativity**

The quality of *Nasheed* groups can be seen in the production of *Nasheed* songs they produce, either their own created songs or other group songs that they composed. The beauty of the *Nasheed* songs lies in the musicality and creativity of the group.

Sternberg (as cited in Daramola et al., 2019) state that creativity is the act of turning new imaginative ideas into reality. Creativity is characterized by the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena and to generate solutions. Creativity involves two processes: thinking and producing.

In terms of music, group musicality is the group's ability to master musical harmonization rules, while group creativity refers to the ability of *Nasheed* groups in creating new patterns both in terms of arrangement and song creation. If it is related to Sternberg's opinion about the creative process, the mastery of harmonization is in the thinking process, while arranging and making songs is part of the producing process.

The ability to harmonize depends on the musical ability so that it can be said that the quality depends on the musical ability. The *munsyid* ability to sing songs harmoniously in the group requires a higher level of ability, because *munsyid* is not only required to sing the tone correctly, but also pay attention to the tone played by other singers. They also need to choose the right tone in order to blend the tone of the corresponding *munsyid*. The quality of *Nasheed* performance is not only determined by the individuals' musicality, but also determined by the group ability in combining the sense of musicality. It is related with Antović, Stamenković, and Figar (2016) state that Blending as a phenomenon involving 'intra-musical' elements.

VandenBos and Torrance (Suacamram, 2019) state that creativity is the source of innovations, new products, new services or solutions to complex problems. Creativity is an ability to produce and develop work, theory, techniques or ideas.

This creativity is very important for the *Nasheed* group because according to Suacamram (2019), if there is a method that would help develop creativity in individuals, particularly during pre-working ages, it will be a great benefit to both the individuals and the future organizations they will be working for. Artinian and Wilson (2017) added that computational creativity, the development of which involves programming computers to reproduce aspects of human creativity, is itself a consequence of human creativity. Torrance (Suacamram, 2019) divides creativity into five components, one of them is originality which means ability to generate uncommon unique ideas.

This uniqueness is very suitable for the interests of the *Nasheed* group. Because a music group, including *Nasheed*, will be easily recognized if it has uniqueness in addition to good skills. This is in accordance with Simpson's psychomotor level which places originality above complex response and adaptation abilities.

One of the ways to use creativity in music can be manifested by improvising either melody, harmony, or rhythm. Azzara (1999) refers to Grove's Dictionary of Music and defines improvisation as "the art of thinking and performing music simultaneously". Based on the definition, she argues that improvisation in music is analogous to the extemporaneous expression of ideas in language. As a spontaneous expression of musical ideas, improvisation is a creative activity. Creativity involves fewer restrictions than improvisational activity. Improvisation involves specific guidelines that provide a framework for the performer.

Learning Focus on the *Nasheed* Group

With poor integrity and unclear goals the curriculum planning cannot effectively. Based on that a meaningful and effective learning must be organized around a focus. The best focus is the focus held as a concept to be understood, a problem to be solved, and a skill that must be mastered (Mursell, 2007). Thus, the focus of learning that needs to be held in *Nasheed* learning is 1) music concepts related to musical elements such as rhythm, melody, and harmony. 2) Solving *Nasheed* Group's real problems, both musical and non-musical, and 3) Skills in singing, playing music, and composing and arranging songs.

Based on professional aspect and psychomotor ability, researcher divide focus learning for the *Nasheed* consists of three stages, namely imitation, creation, and originality. The imitation stage is intended for beginner *Nasheed* groups, the creation stage for semi-professional *Nasheed* groups, and the originality stage for professional *Nasheed* groups. The tune imitation technique is necessary because the *munsyid* of a beginner *Nasheed* group generally have not understood harmony principles well especially in the voice division. They need examples of the part of the melody to make the tune in harmony. Besides imitating a melody, the focus of learning is also emphasized on the motive, which is the smallest part of a melody. These motifs are the basic elements of developing melodies and song phrases to form a song. This needs to be done because discovering motif is very importance as Boot, Volk, and de Haas (2016) said that the Annotated Motifs performed better than anything else in terms.

The creation stage is the learning stage emphasizing *munsyid*'s creativity in arranging or creating a song. The appropriate learning for professional *Nasheed* groups emphasizes abilities in adaptation and originality. The ability in adaptation is the ability to adapt to the atmosphere of the performance and the formation of the *Nasheed* group's character, while the ability in originality is the ability to reveal new- creation in *Nasheed* performances.

***Munsyid* Learning Style**

Broadly speaking, there are two kinds of music learning styles, namely learning music by relying on feeling or tone sensitivity and learning music which relies on cognitive

abilities by reading. Djohan (2005) terms learning styles that rely on feeling as aural / creative orientation learning model, while cognitive learning styles are called visual orientation learning models. Meanwhile, De Mulder et al. (2003) revealed about the auditory learning model, which is a learning model that relies on the listener's senses. When it is related to the learning style suggested by Djohan previously, this auditory learning model is in accordance with the learning style that relies on tone sensitivity.

When associated with Munsyid, they listen to music more than they learn music by reading. Thus it can be said that *Nasheed's* learning style relies on feelings and auditory learning models. The learning focus in *Nasheed* group can be seen in figure 2.

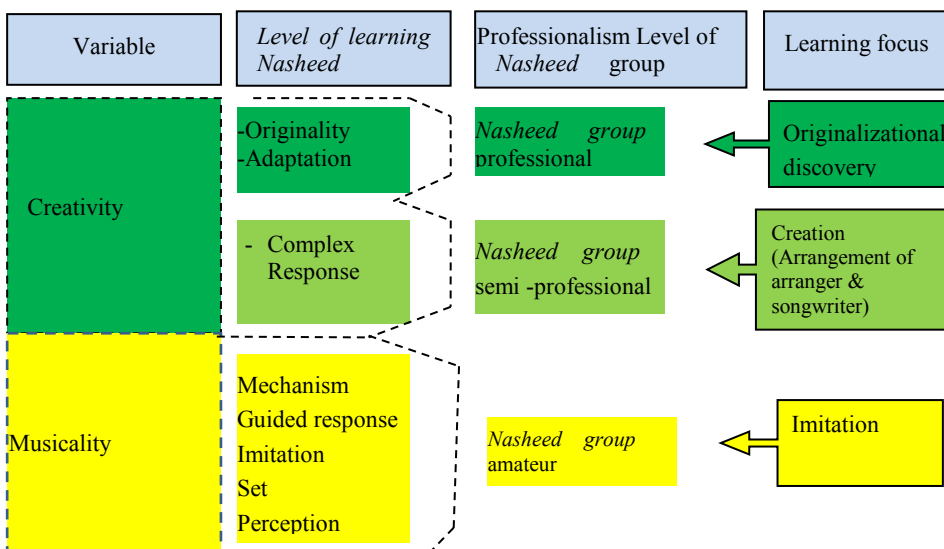


Figure 2
The implementation of focus learning to the *Nasheed* group

Technology of Encore Music Software as a Media of Learning

Today computers are used in every joint of life including music. Prensky (Nart, 2016) calls today’s students as Net Jeneration states that these students are all “native speakers” of the language of “digital” by spending hours per day with computers. (Camurri, 1999) proposed a general, flexible, and powerful architecture to build emotional agents, i.e. software agents embedding models of communication by means of the metaphor of artificial emotions.

The first program that allowed digital synthesis in music as a paradigm score was developed by Max Mathews at Bell Laboratories and presented in 1957 in New York. Then, it was continued in many notation applications and score writers like Finale, Capella, Sibelius and MuseScore to name just a few (Möllenkamp, 2014)

Encore is one of these types of music software whose main function is to write the notation and play the music notation. Encore software has been developed to facilitate writing of music notation, arrangements, and composition of the songs. As state before that encore developed by US Passport Designs. Encore was originally created for the Apple Macintosh by Don Williams for the US company, Passport Designs Inc. from Half Moon Bay, CA., and was first released in 1984. Lyrrus Inc., d.b.a. GVOX purchased Passport's intellectual property in 1998 and Encore 5 was released 10 years after Encore 4.

Encore is best known for being one of the first score-writing programs to enable items in a musical score to be added and edited using the mouse. On August 1, 2013, Passport Music Software LLC, acquired the rights to Encore, Music Time Deluxe and MasterTracks Pro.

Encore program is one of the software that can be used to write music notation. Besides, the program can be used to check whether or not the combination of tone selection is harmonious. This is in line with Wang's (2016) argument that encore has a very intuitive score display function. Using this feature, we can teach in harmony with the actual sound spectrum of cases in the classroom teaching harmony synchronized show in front of students, and can be quickly re-presentation.

The program also provides a feature that allows the music player to listen to a single melody, a melody with two or more sounds. This makes it easier for *Nasheed* singers to memorize melodies among other melodies played by other singers.

This music software is commonly used by students majoring in music. Based on researcher's observation (Astuti, Widyantoro, Wubbles, & Hoogeveen, 2016), in developed countries such as the Netherlands, music software has been widely used by HAVO (Hoger Algemeen Voortgezet Onderwijs) and VWO (Voorbereidend Wetenschappelijk Onderwijs) students (Junior and Senior High School). Based on the researchers' observations at Cals College Nieuwegein School (Astuti, Darmiyati Zuchdi, Sudiono, Wubbles, & Hoogeveen, 2011), the students made arrangement by writing down the song scores which were distributed to other students to sing together. The scores were written with Encore and Sibelius programs. This shows that with music software it is possible for everyone to learn music more deeply. Especially now that many music tutorial media have been developed which have proven to be effective in increasing skills in the music field. As the opinion of Dannenberg et al. (1990), which proves that a computer based multi-media tutor performance is enhanced because lessons restrict the amount of knowledge that must be managed at any point in time. This is in line with the opinion of Hendikawati, Zahid, and Arifudin (2019) regarding the effectiveness of the use of computer learning which states that the Computer Assisted Instruction media can accommodate students who lack to receive lessons and stimulate students to do the exercises. This because of the availability of animated graphics, colours, and music that can make the concept more realistic. The effectiveness of software was also found by Tamur, Juandi, and Kusumah (2020), in a meta-analysis involving a number of 51 studies which concluded that the use of software in mathematics is greater than conventional approaches.

METHOD

The Design of Research

This research is an experiment research with Pretest-Posttest Control Group design with completely randomized design. Kirk (1995) stated that completely random design should have two conditions, that is one experimental variable with $k=$ two or more treatment levels and random assignment of subject of the treatments levels.

Independent variable of this research is learning focus by using Encore Music Software and dependent variable is musicality and creativity. The population of this study comprises more than 100 *Nasheed* groups in Yogyakarta.

This study provides four different treatments (three for experiment group and one for controlled group) on three different group characteristics, so the sampling technique used is stratified random sampling by dividing the population in the strata group, then selecting the sample randomly on each stratum.

The first step is intended to classify strata clearly, while the second step chooses randomly on each strata. Astuti (2009) found that the proportion of beginner, semi-professional, and professional *Nasheed* groups is 53.85%: 30.77%: 15.38%.

Based on the technique, 26 groups were selected with the classification of 14 groups of beginner *Nasheed* who were treated by music media with the focus on imitation, 8 groups of semi-professional *Nasheed* who were given music focus creation software and 4 groups of professional *Nasheed* who were given music software with the focus on originality. The number of *Nasheed* groups selected at each level of professionalism is determined based on proportional or comparison of the number of amateur, semi-professional, and professional groups in the population. The 26 *Nasheed* groups consist of 262.

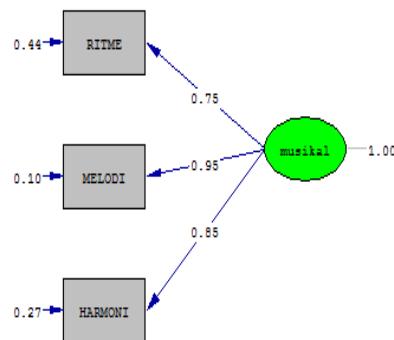
The 26 *Nasheed* groups consist of 22 male nasheed groups and 4 female nasheed groups aged between 19 to 27 years. The number of male *Nasheed* groups is far more than female *Nasheed* groups, because there are some Muslims who think that women are not allowed to sing, and if they are allowed to sing then it can only be done in front of a female audience (Astuti, 2009). The *Nasheed* group was then divided into two groups, namely the experimental group that will be given the learning focus by using encore treatment, while the other group was the control group who were given *Nasheed* learning as previously did not use Encore. The experimental *Nasheed* group consisted of 11 male groups and 2 female *Nasheed* groups. This also applies to the control group.

Musicality and creativity data is gained from performance test. Both musicality and creativity were measured twice, firstly at the pretest before being given the learning focus treatment with encore software, and secondly at the post-test after being treated. The difference in increasing musicality and creativity in the experimental group is the basis for concluding whether Encore is effective in improving *Nasheed's* performance or not.

Instrument Research

This study uses two instruments, which includes an instrument to measure musicality and an instrument to measure creativity. Sumaryanto (2000) says that in general musical ability refers to the innate ability inherent in individuals in responding to musical elements, namely rhythm, melody and harmony. While Kamien (2008) describes the elements of music as being rhythm, tone, melody, harmony, scale, dynamic, tempo, style, and genre

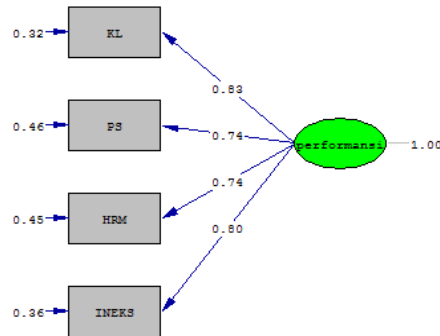
Based on this description, the researchers developed musically instruments by breaking down musicality variables in three indicators, namely rhythm, melody, and harmony. Musical instruments were tested in 81 participants outside experimental dan control groups in the Indonesian *Nasheed* Festival. Researchers conducted trials on musical instruments that consist of rhythm, melody, and harmony components. The result of confirmatory analysis with LISREL 8.51 program revealed the validity of rhythm aspect is 0.78 and its reliability is 0.56. Melodic aspect of validity is 0.95 and its reliability is 0.9. The validity of the harmony aspect is 0.85 and the reliability is 0.73. The following is an image of a confirmatory analysis using the LISREL program.



Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

Figure 3
Validity and realibility of musicality instrument research

The second instrument, namely the Nasheed creativity instrument consists of four indicators in terms of song quality, sound production, harmonization, and interpretation and expression. The Nasheed performance was then analyzed by a confirmatory factor analysis of LISREL 8.51. The following is a picture of the conformatory analysis of the creativity variable research instrument shown in the appearance of the Nasheed group.



Chi-Square=20.38, df=2, P-value=0.00004, RMSEA=0.316

Figure 4
Validity and reliability of creativity instrument research

KL is quality of song

PS is voices production

HRM is harmonization

INEKS is interpretation and expression

Performance is the creativity of munsyid in Nasheed performances

It is noted that component of song quality scored 0,83 and 0,78 for validity and reliability respectively. The component of sound production scored 0,74 for its validity and 0,54 for its reliability, which slightly differs from harmonization concept, that scored 0,74 for its validity and 0,55 for its reliability. Lastly, component of interpretation and the expression scored 0.80 for its validity and 0.76 for its reliability. Thus, it implies that the instrument to measure creativity can be used.

Treatment

Based on figure 2, the treatment given to the beginner or amateur group focuses on imitation learning. Each munsyid played the melody according to their respective parts which were written in the encore then the munsyid imitated the melody until they mastered it. After that they sing together.

The semi-professional Nasheed group was given treatment focused on learning creation. This group was given learning and the task of creating Nasheed songs, then the notation was written with an encore program. The next step is the semi-professional Nasheed group practicing by singing it guided by the melody that is played through the encore. After the professional Nasheed group mastered it, they performed it in a show.

The professional Nasheed group was given treatment focusing on learning the formation of originality. In general, so far, Nasheed groups do not write songs and their arrangements in a notation, they rely on memorization in their performances. In this experiment, song notations and arrangements were written in the encore, then the munsyids were assigned to listen. After that, the munsyids were asked to sing it

improvised according to their preferred characteristics to find the particular style of the Nasheed in question that could be used as the hallmark of the Nasheed group.

The factorial design is applied in this research implementing 4 x 3 factorial design as showed in Table 1.

Tablo 1

The factorial design is applied in this research implementing 4 x 3 factorial design

<i>Learning Focus (F)</i>		Conventional (not using Encore(F ₁))	Imitation by Using Encore(F ₂)	Creation by Using Encore(F ₃)	Originality by Using Encore(F ₄)
Professionalism (P)	Amateur (P ₁)	F ₁ P ₁	F ₂ P ₁		
	Semi Professional (P ₂)	F ₁ P ₂		F ₃ P ₂	
	Professional (P ₃)	F ₁ P ₃			F ₄ P ₃

The treatment was carried out for almost one year. Starting after the celebration of Eid al-Fitr until the month of fasting. The fasting month is a time when Nasheed performs in da'wah events before breaking the fast. At that time, the Nasheed group presented its performance which had been prepared for one year.

Data Analysis

This study involves one independent variable and two dependent variables. The independent variable is focus of learning consisting of 3 levels, which are imitation learning, creation, and originality by using encore music software. The dependent variable consists of musicality and creativity. Both dependent variables have three conditions or categories, which are the musicality and creativity variables in the beginner, semi-professional, and professional group.

Researcher identify the effect of music software on musicality and creativity collectively of *Nasheed* group. The data, then, were analysed using MANCOVA (Pallant, 2013).

Ethical Consideration of the Study

First of all, the researcher invited the *Nasheed* groups in the Province of the Special Region of Yogyakarta according to the criteria needed in this study, which included professional, semi-professional, and amateur *Nasheed* groups. In the meeting, it was explained that the researcher would conduct research on the focus of *Nasheed's* learning and offer the *Nasheed* groups to be the research respondents. There were 26 *Nasheed* groups who were then willing to participate voluntarily in this study.

To maintain the privacy of the respondents, the researchers kept their identities secret. In addition, the measurement of research variables was carried out as objectively as possible based on valid and reliable instruments.

FINDINGS

The main hypothesis of this research is that the focus on learning imitation, creation and origination using encore music software is effective in increasing the musicality and creativity of the Nasheed group. Meanwhile, the minor hypotheses are that the focus of learning is effective for the amateur Nasheed group (beginner), the focus of learning on

creation is effective for the semi-professional Nasheed group, and the focus of learning on originality is effective for the professional Nasheed group learning.

The data were obtained based on the results of the pre-test and post-test on the musicality and creativity of the Nasheed group. The data were analysed by the Statistical Package for the Social Sciences (SPSS) for windows version 22,0. The analysis was preceded by normality test using One-Sample Kolmogorov-Smirnov Test and homogeneity test using Levene's Test of Equality of Error Variances. The summary of the result of normality and homogeneity test are provided in Table 2.

Table 2

The summary of the result of normality and homogeneity test

Group of data	N	Normality	Homogeneity	
		Sig	Levene's Test Score	Sig
Pretest of Musicality	131	0,157		0.210
Posttest of Musicality	127	0.599		0.610
Pretest of Creativity	131	0,362		0.001
Posttest of Creativity	127	0.020		0.064

The influence of Encore music software on musicality can be seen in the mean difference between the experimental group and the control group in the *Nasheed* amateur, semi-professional, and professional groups. Meanwhile, the improvement is seen in the difference in musicality between the posttest and the pretest. The summary of MANCOVA results as Follows.

Table 3

The result of multivariate tests

Multivariate Tests						
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Encore software Pillai's Trace	.298	4.121	4.000	94.000	.004	.149

The result of the research show that the comparing both musicality and creativity between experiment group has differences significantly it can be seen that the significance 0.004 (lower than 0.05). The contribution of encore software to creativity and musicality is 14,9% (based on Partial Eta Squared 0.149).

Meanwhile the mean score musicality and creativity of experiment and control group as follows.

Table 4

Descriptive statistics

Experiment and control	Musicality and Creativity	Mean	Standard Deviation
Experiment	Musicality	13.0664	4.12893
Control	Musicality	9.2721	5.20185
Experiment	Creativity	74.3750	14.68384
Control	Creativity	64.1000	14.04535

The mean of experiment group higher than control group. It proves that the use of encore music software can increase musicality and creativity more effectively than the conventional method.

The results of the multivariate analysis in detail can be seen in table 5 below.

Table 5
The summary of Mancova results

Source	Dependent Variable	Df	Mean Square	F	Sig.	Partial Eta
Corrected Model	Post-test Musicality	5	284.874	39.054	0.000	0.677
	Post-test Creativity	5	1723.159	9.063	0.000	0.328
Intercept	Post-test Musicality	1	1.525	0.209	0.649	0.002
	Post-test Creativity	1	3634.733	19.117	0.000	0.171
Pre-test Musicality	Post-test Musicality	1	1223.390	167.718	0.000	0.643
	Post-test Creativity	1	839.547	4.416	0.038	0.045
Pre-test Creativity	Post-test Musicality	1	50.216	6.884	0.010	0.069
	Post-test Creativity	1	2394.562	12.594	0.001	0.119
Focus of Learning	Post-test Musicality	3	66.021	9.051	0.000	0.226
	Post-test Creativity	3	366.233	1.926	0.131	0.059

Based on the table, it is known that all variables, namely learning focus, professionalism, and pretest have a significant influence on the independent variables, namely musicality and creativity. The musicality initial ability has a contribution to the musicality variable of 67.7% and the creativity variable of 4.5%. While the initial ability of creativity also had a significant effect and contributed 5.9% and 11.9% to musicality. The focus of learning has a significant influence on musicality and contributes 22.6%. However, the focus of learning in general does not significantly affect creativity because the significance is only 0.131, which is less than 0.05. This finding is interesting because it is unexpected that the focus of learning does not have a significant contribution to creativity.

The researcher explored the insignificance of the learning focus on creativity by conducting a univariate test, it turned out that the F value was 7.499 on df 3 with a significance of 0.00. This means that the focus on imitation learning in the amateur

group, creation in the semi-professional group and originality in the professional group in the experimental group is significantly different from the control group that does not use an encore. The mean score for each group can be seen in table 6 as follows.

Table 6

Mean scores of imitation, creation, originality, and conventional learning focus

<i>Dependent Variable</i>	<i>Focus</i>	<i>Group</i>	<i>Mean</i>
Creativity	Imitation	Experiment	67.2429
	Creation	Experiment	79.5725
	Originality	Experiment	91.4375
	Conventional	Control	62.3288

Given that the mean score in the experimental group is higher than the control group, it can be said that the minor hypothesis says that giving focus on learning by using encore in the form of imitation in the beginner (amateur) Nasheed group, creation for the semi-professional Nasheed group, and originality in the professional group can increase creativity munsyid is not rejected.

DISCUSSION

The results showed that there were significant differences in musicality and creativity between the experimental group and the control group with the experimental group's mean being higher than the control group, so it can be said that Encore music software has a positive effect on musicality and creativity. The results of this study are generally in line with the research of Hendikawati et al. (2019) which found that CAI (Computer Assisted Instruction) media as learning resources that can encourage students to study independently in a statistics course. This is also in accordance with Brown (2007)'s research which also shows that music software for the student, in a process is best described as building new learning environments.

Based on table 5, it is known that focus learning also has a significant effect on musicality, but has no effect on creativity. This finding is interesting because it is unexpected that the focus of learning does not have a significant contribution to creativity. This is also not in line with Sternberg's (2020) theory which concludes that musical intelligence has creative, analytical, practical, and wisdom-based aspects.

The researcher analyzed that this is because the encore functions more to provide examples of singing melodies and harmonization. Thus, it serves as a model to be replicated appropriately. Meanwhile, creativity is the ability to process existing music, so its level is higher than just imitating. As stated by Simpson, imitation is an ability at level 3 (after perception and set), while creativity, the ability to form new patterns, is at a higher level, namely at the origination level or at level 7.

Imitation is the ability to imitate an existing one. The theory of imitation was first put forward by M. Tarde (Ellwood, 1901) who stated that imitation is the repetition of the act of one person by another. This imitation theory grew in various disciplines even more than a century later. Meltzoff (2002) argues that Human gradually learned to

imitate over the first several years of life. Newborns can imitate body movements at birth. Such imitation reveals an innate link between observed and executed acts, with implication for brain. Imitation is also done by adults. Apesteguia (2007) argue that introspection shows that imitation also plays a significant role for adult learning. In fact, imitation is prevalent in much of everyday decision making, in particular when the environment is complex or largely unknown.

It can be said that imitation is one of the fundamental laws of learning. There is not a single learning process that does not go through the imitation process. Apesteguia et al. (2007) also explained that there is a big change in the current imitation theory from the traditional imitation theory. In contrast to traditional theories of rational behavior, the recent imitation theory state is a behavioral rule with very “soft” assumptions on the rationality of agents.

While creativity, as stated by Sternberg, (as cited in Daramola et al., 2019) is the act of turning new imaginations. Thus, creativity is a higher ability than imitation. At least two things are needed to be creative. The first is imitating the existing one and the second is creating something new from the existing one. Meanwhile, the encore music software encore used in learning is used to write the notation and sound the notation which is then imitated by *munsyid*. So it is not surprising that encore music software has more effect on musicality than its effect on creativity. This explains why encore music software has no significant effect on creativity when analyzed for its effect on musicality and creativity together. The influence of the software only appears when the dependent variable creativity is analyzed separately from musicality.

The limitation of this study is that the treatment of the three types of learning focus, namely imitation, creation, and originality, is not given at all levels of professionalism, but is given at a certain level of professionalism.

The focus of imitation learning is given to the beginner group (amateur), creation is given to the semi-professional group, and originality to the professional group. This causes an unknown effect if the focus of imitation learning is given to semi-professional and professional groups. Likewise, the effect is not known if the focus on creation learning is given to amateur and professional *Nasheed* groups. The effect of the focus of origination learning on amateur and semi-professional groups is also unknown.

Referring to the opinion of De Mulder et al. (2003) and Djohan (2005) which states that there are two kinds of learning styles in music, namely auditory and cognitive. The results of this study confirm the previous statement that the learning style of the *Nasheed* players (*munsyid*) is auditory learning.

The *Nasheed* players do not use notation in learning music but rely more on the sense of hearing. They learn music by listening to the melody and imitating the melody they hear. Likewise, with the songs they created, they did not write down the notation but memorized it.

CONCLUSION

Based on the research results, it can be concluded that Encore music software has a positive and significant influence on the creativity and musicality of the *Nasheed* group.

Focus learning also affects musicality and creativity, when musicality and creativity are analysed separately. The focus of imitation learning has a significant influence on the musicality and creativity of the amateur *Nasheed* group (beginner). The focus of creation learning has a positive and significant effect on the musicality and creativity of the semi-professional *Nasheed* group, and the focus on originality learning has a positive and significant effect on the musicality and creativity of the professional *Nasheed* group.

In its use, it is necessary to do a different focus, imitation for beginners, creation for semi, and originality for professionals. It will enhance musicality and creativity. However, it would be more appropriate to teach musicality and creativity separately, because this software tends to teach imitation which is suitable for musicality. Creativity can be taught after musicality, not simultaneously. Thus, this research suggests several implications for *Nasheed* group and music learning. *Nasheed* groups need to consider using music software technology to improve their musicality and creativity. Music learning could adapt types of activities which are relevant to the level of ability showed by the *Nasheed* singers. The suggested instructional media for beginner *Nasheed* group is a learning media that focuses on imitation; the learning media for semi-professional groups might focus on making arrangement or composing songs; and the learning media for professional *Nasheed* group might focus on originality.

This study provides different treatments at different levels of professionalism. However, this study does not provide the three types of treatment at the three levels of professionalism. Thus, it is recommended to do research with the same learning focus at different levels of professionalism. This study also found that the learning style of *munsyids* tends to be auditory rather than cognitive, but this has not been done in in-depth research, so further research is needed on the learning styles of *munsyids* in Indonesia.

REFERENCES

- Ajmain, M. T., Safar, J., Mohamed, A. K., & Huda, M. (2020). Understanding Nasheed for learning strategy in Islamic education. In M. Huda, J. Safar, A. K. Mohamed, K. A. Jasmi, & B. Basiron (Eds.), *Global Perspectives on Teaching and Learning Paths in Islamic Education* (pp. 205–218).
- Antović, M., Stamenković, D., & Figar, V. (2016). Association of meaning in program music: On denotation, inherence, and onomatopoeia. *Music Perception: An Interdisciplinary Journal*, 34(2), 243–248.
- Apesteguia, J., Huck, S., & Oechssler, J. (2007). Imitation—theory and experimental evidence. *Journal of Economic Theory*, 136(1), 217-235.
- Artinian, A., & Wilson, A. J. (2017). On Improvised music, computational creativity and human-becoming. *Leonardo Music Journal*, 27, 36–39.
- Astuti, K. S., Darmiyati Zuchdi, E. D., Sudiono, S. P., Wubbles, T., & Hoogeveen, K. (2011). *Developing model for teaching and learning music in public school based on*

comparative study between Indonesia and the Netherlands.

Astuti, K. S., Widyantoro, A., Wubbles, T., & Hoogeveen, K. (2016). Music teaching model in the Netherlands. In *International Conference on Educational Research and Innovation (ICERI) 2016* (pp. 334–341).

Astuti, K. S. (2003). Pembelajaran ansambel musik mempersiapkan anak didik memasuki masyarakat multikultural [Teaching musical ensembles to prepare students to blend into a multicultural society]. *Cakrawala Pendidikan*, 22(2), 275–294.

Astuti, K. S. (2009). *Pengembangan model evaluasi pembelajaran dalam perspektif penciptaan makna baru pada grup Nasyid Propinsi Daerah Istimewa Yogyakarta [Development of learning evaluation models in the perspective of creating new meanings in the Nasyid group of the Special . Universitas Negeri Yogyakarta.*

Astuti, K. S., Veugelers, W., Srimudjilah, H., & Armini, A. (2020). Developing Simpson's taxonomy theory to construct assessment guidelines for music competency within the psychomotor domain. In *Proceedings of the International Society for Music Education: 34th World Conference on Music Education* (pp. 59–66). Victoria: International Society for Music Education (ISME).

Azzara, C. D. (1999). Approach aural approach to improvisation. *Music Educators Journal*, 86(3), 21–25.

Barendregt, B. (2011). Pop, politics and piety: Nasyid boy band music in Muslim Southeast Asia. In *Islam and Popular Culture in Indonesia and Malaysia* (pp. 235–256). New Jersey: Routledge. doi:10.4324/9780203829004

Boot, P., Volk, A., & de Haas, W. B. (2016). Evaluating the role of repeated patterns in folk song classification and compression. *Journal of New Music Research*, 45(3), 223–238. doi:10.1080/09298215.2016.1208666

Brown, A. (2007). Software development as music education research. *International Journal of Education and the Arts*, 8(6), 1–13.

Camurri, A. (1999). Music content processing and multimedia: Case studies and emerging applications of intelligent interactive systems. *Journal of New Music Research*, 28(4), 351–363. doi:10.1076/0929-8215(199912)28:04;1-o;ft351

Dannenberg, R. B., Sanchez, M., Joseph, A., Capell, P., Joseph, R., & Saul, R. (1990). A computer-based multi-media tutor for beginning piano students. *Interface*, 19(2–3), 155–173. doi:10.1080/09298219008570563

Daramola, D. S., Bello, M. B., Yusuf, A. R., & Amali, I. O. O. (2019). Creativity level of hearing impaired and hearing students of federal college of education. *International Journal of Instruction*, 12(1), 1489–1500. doi:10.29333/iji.2019.12195a

De Mulder, T., Martens, J.-P., Lesaffre, M., Leman, M., Baets, B. De, & Meyer, H. De. (2003). An auditory model based transcriber of vocal queries. In *Proceedings of the 4th International Society for Music Information Retrieval Conference (ISMIR 2003)*.

- Baltimore, USA: Johns Hopkins University.
- Djohan. (2005). *Psikologi musik [Music psychology]*. Yogyakarta: Buku Baik.
- Ellwood, C. A. (1901). The theory of imitation in social psychology. *American Journal of Sociology*, 6(6), 721-741.
- Gibson, C., Folley, B. S., & Park, S. (2009). Enhanced divergent thinking and creativity in musicians: A behavioral and near-infrared spectroscopy study. *Brain and Cognition*, 69(1), 162–169. doi:10.1016/j.bandc.2008.07.009
- Gwilliam, S. (2009). The rise of ‘Pop Islam’ in Britain. Retrieved March 24, 2021, from [https://www.wm.edu/as/globalstudies/european/conference/pre-2009-conference-docs/Sarah Gwilliam ESconf08.pdf](https://www.wm.edu/as/globalstudies/european/conference/pre-2009-conference-docs/Sarah%20Gwilliam%20ESconf08.pdf)
- Hatch, T., & Gardner, H. (1993). Finding cognition in the classroom: an expanded view of human intelligence. *Distributed Cognitions: Psychological and Educational Considerations*, 164, 164–187.
- Hendikawati, P., Zahid, M. Z., & Arifudin, R. (2019). Android-based Computer Assisted Instruction development as a learning resource for supporting self-regulated learning. *International Journal of Instruction*, 12(3), 389–404. doi:10.29333/iji.2019.12324a
- Jailani, M. S. (2014). Guru profesional dan tantangan dunia pendidikan. *Al-Ta Lim Journal*, 21(1), 1–9.
- Kamien, R. (2008). *Music: An Appreciation*. New York: MacGraw–Hill Companies.
- Kirk, R. E. (1995). *Experimental design: procedures for the behavioral sciences*. Pacific Grove, Ca: Thomson Brooks/Cole Publishing Co.
- Lehmann, A. C., Sloboda, J. A., & Woody, R. H. (2007). *Psychology for musicians: Understanding and acquiring the skills*. Oxford: Oxford University Press.
- Meltzoff, A. N. (2002). Elements of a developmental theory of imitation. *The imitative mind: Development, evolution, and brain bases*, 19-41.
- Miletto, E. M., Pimenta, M. S., Bouchet, F., Sansonnet, J. P., & Keller, D. (2011). Principles for Music Creation by Novices in Networked Music Environments. *Journal of New Music Research*, 40(3), 205–216. doi:10.1080/09298215.2011.603832
- Möllenkamp, A. (2014). Paradigms of music software development. In *Proceedings of the Conference on Interdisciplinary Musicology* (pp. 2–4).
- Morris, C. (2016). Music and materialism: The emergence of alternative Muslim lifestyle cultures in Britain. In T. Hutchings & J. McKenzie (Eds.), *Materiality and the Study of Religion* (pp. 67–84). New York: Routledge.
- Mulyani, W. (2003). *Nasyid sebagai gerakan estetik mahasiswa muslim di kampus [Nasyid as an aesthetic movement for Muslim students on campus]*. Universitas Gadjah Mada.

- Mursell, J. L. (2007). *Successful Teaching, Its Psychological Principles*. New York: McGraw-Hill Book Company.
- Nart, S. (2016). Music software in the technology integrated music education. *Turkish Online Journal of Educational Technology-TOJET*, 15(2), 78-84.
- Pasrizal, H., Mutasar, A., Khaira, K., & Shabri, H. (2020). Implementation of educational management in integrated Islamic schools. *PROCEEDING IAIN Batusangkar*, 1(1), 115–124.
- Poetra, A. E. (2004). *Revolusi nasyid [Nasyid revolution]*. Bandung: MQS Publishing.
- Rokhani, U. (2019). Sabyan gambus “Ya Maulana” song lyric and its meaning in the production strategy in obtaining legitimation as Indonesia religious music. In *8th ELTLT International Conference Proceedings* (pp. 300–308). Semarang: UNNES.
- Simpson, E. J. (1971). Educational objectives in the psychomotor domain. In *Behavioral Objectives in Curriculum Development: Selected Readings and Bibliography* (pp. 60–67). New Jersey: Educational Technology Publications.
- Sternberg, R. J. (2020). Toward a theory of musical intelligence. *Psychology of Music*, 1–11. doi:10.1177/0305735620963765
- Suacamram, M. (2019). Developing creativity and entrepreneurship of undergraduate students through a field trip overseas. *International Journal of Instruction*, 12(1), 591–606.
- Sumaryanto, F. T. (2000). Kemampuan Musikal dan Pengaruhnya terhadap Prestasi Belajar Musik. *Harmonia: Journal of Arts Research and Education*, 1(1).
- Supratman, Zubaidah, S., Corebima, A. D., & Ibrohim. (2021). The effect size of different learning on critical and creative thinking skills of biology students. *International Journal of Instruction*, 14(3), 187–206. doi:10.29333/iji.2021.14311a
- Tamur, M., Juandi, D., & Kusumah, Y. S. (2020). The effectiveness of the application of mathematical software in indonesia: A meta-analysis study. *International Journal of Instruction*, 13(4), 867–884. doi:10.29333/iji.2020.13453a
- Thomas, D. R., & Thomas, D. H. (1974). Stimulus labeling, adaptation level, and the central tendency shift. *Journal of Experimental Psychology*, 103(5), 896–899. doi:10.1037/h0037385
- Ulfa, M. (2018). Remembering God and da’wa through English Islamic song lyrics of Indonesian Nasyid. *Insaniyat: Journal of Islam and Humanities*, 2(2), 131–146.
- Wang, N. (2016). The application of computer music technology to college students. *MATEC Web of Conferences*, 44, 1–4.